

A-8753W

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Gerald J. BANKS

Appln. No.: 10/742,890                          Group Art Unit: 2824

Filed: December 23, 2003                          Examiner: H. Nguyen

For: MEMORY APPARATUS INCLUDING PROGRAMMABLE NON-VOLATILE  
MULTI-BIT MEMORY CELL, AND APPARATUS AND METHOD FOR  
DEMARCATING MEMORY STATES OF CELL

\* \* \*

INFORMATION DISCLOSURE STATEMENT

**RECEIVED**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

DEC 10 2004

**OFFICE OF PETITIONS**

Sir:

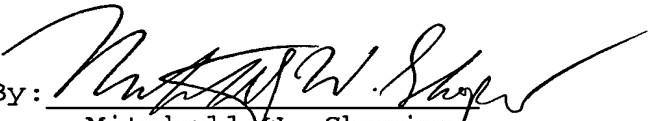
Pursuant to 37 C.F.R. § 1.56, and without any assertion  
as to materiality or prior art effect, the documents listed  
on the attached Form PTO-1449 are hereby cited.

Documents AJ-AP on the attached List were cited in a  
counterpart Japanese patent application (an English  
translation of the Japanese Office Action is attached).

To facilitate the Examiner's consideration of Documents  
AJ, AK, and AM, copies of English counterpart publications  
US 5,940,704, WO 90/12400, and US 5,148,063 have been  
located and attached to the cited documents.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 any fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required by this paper and to credit any overpayment to that Account. If any extension of time is required in connection with the filing of this paper and has not been requested separately, such extension is hereby requested.

Respectfully requested,

By:   
Mitchell W. Shapiro  
Reg. No. 31,568

MWS:sjk

Miles & Stockbridge P.C.  
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Suite 500  
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December 9, 2004

FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT <u>LIST OF DOCUMENTS CITED BY APPLICANT</u>				Atty. Docket No. A-8753W	Appln. No. 10/742,890		
				Applicant Gerald J. BANKS			
				Filing Date December 23, 2003	Group 2824		
U.S. PATENT DOCUMENTS							
Examiner Initial		Document Number	Date	Name	Class	Sub-class	Filing Date
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
FOREIGN PATENT DOCUMENTS							
Examiner Initial		Document Number	Date	Country	Class	Sub-class	Translation
	AJ	9-181279	07/11/97	Japan			No
	AK	4-507320,	12/17/92	Japan			No
	AL	5-217385,	08/27/93	Japan			No
	AM	3-242898,	10/29/91	Japan			No
	AN	6-686827	03/11/94	Japan			Abstract
	AO	8-1950927	07/30/96	Japan			Abstract
	AP	62-6493,	01/13/87	Japan			Abstract
	AQ						
	AR						
OTHER (including author, title, date, pertinent pages, etc.)							
	AS						
	AT						
	AU						
Examiner				Date Considered			
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.							

**EXAMINER'S OFFICE LETTER**

SEPT 2, 2004

(Mailing Date: September 8, 2004)

To: Applicant ( BTG International Inc. )

Examiner : T. NAGASHIMA

" Memory Apparatus Including Programmable Non-Volatile Multi-Bit Memory Cell, and Apparatus and Method for Demarcating Memory States of the Cell"

Patent application No. 2000-522592

The above-identified application is to be refused for the reason or reasons as put down. A reply to the present office action must be filed before December 8 2004 (three month extensible).

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= NOTE =

Reason 1

The inventions as recited in claims 1-77 are unpatentable under Article 29, Item 2 of the Japanese Patent Law because of obviousness from the listed prior art References 1-4.

Regarding to Claims 1-3, 20-22, 39-41, 45-47, 58, 59, 67 and 68  
The inventions as recited in these claims are obvious from References 1-4.

Remarks:

It is only a matter which can be properly designed by one skilled in the art to provide in an apparatus as disclosed in References 1 and 2 an arrangement of causing the "reference signal" to be generated from the "plurality of signals" as in the present invention, by referring to References 3 and 4.

Regarding to Claims 4-19, 23-38, 42-44, 48-50, 60-66 and 69-77  
The inventions as recited in these claims are obvious from References 1-4.

Remarks:

It is only a matter which can be properly designed by one skilled in the art to provide an arrangement as in the present invention.

Regarding to Claims 51-57

The inventions as recited in these claims are obvious from References 1-3.

**Remarks:**

The present invention is recognized to be what could have been easily made by one skilled in the art on the basis of the multi-level memory as disclosed in References 1-3.

**Reason 2**

The claims fail to satisfy the formality requirement as prescribed in Article 36, Item 6 of the Japanese Patent Law, in respect of the following points.

**Remarks:**

1. Referring to the term "substantially" in claims 1, 7, 8, 15, 16, 20, 26, 27, 34, 35, 39, 44, 45, 50, 52, 55, 57, 58, 63, 67, 71 and 72, it is unclear what scope is represented by this term.
2. Omitted (because of the problem of only Japanese translation).
3. Regarding to the recitation in each of Claims 12, 13, 31, 32, 65, 66 and 74, it is unclear how the "divider" is distinguished from the "divider circuits".

If a reason for refusal is newly found, it will be notified.

= List of Prior Art References =

- Reference 1: JP Laid-Open Gazette No. 9-181279  
Reference 2: JP National Publication Gazette No. 4-507320  
Reference 3: JP Laid-Open Gazette No. 5-217385  
Reference 4: JP Laid-Open Gazette No. 3-242898

The following additional References 5-7 are the search results of IPC Version 7G11C 16/00-16/34, and listed only for the purpose of noticing the Applicant to consider related arts. The novelty/inventive step for the claims presently on file does not appear to be denied by these related arts.

- Reference 5: JP Laid-Open Gazette No. 6-68682  
Reference 6: JP Laid-Open Gazette No. 8-195092  
Reference 7: JP Laid-Open Gazette No. 62-6493

整理番号:

発送番号:332956 発送日:平成16年 9月 8日

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## 拒絶理由通知書

特許出願の番号

12 8 K Y

特許出願の番号

特願2000-522592

起案日

平成16年 9月 2日

特許庁審査官

長島 孝志 7827 5N00

特許出願人代理人

岡部 正夫 (外10名) 様

適用条文

第29条第2項、第36条



この出願は、次の理由によって拒絶をすべきものである。これについて意見があれば、この通知書の発送の日から3か月以内に意見書を提出して下さい。

## 理 由

(1) この出願の下記の請求項に係る発明は、その出願前日本国内又は外国において頒布された下記の刊行物に記載された発明に基いて、その出願前にその発明の属する技術の分野における通常の知識を有する者が容易に発明をすることができたものであるから、特許法第29条第2項の規定により特許を受けることができない。

(2) この出願は、特許請求の範囲の記載が下記の点で、特許法第36条第6項第2号に規定する要件を満たしていない。

記 (引用文献等については引用文献等一覧参照)

[理由 (1) について]

- ・請求項 1～3, 20～22, 39～41, 45～47, 58, 59, 67, 68
- ・引用文献等 1～4
- ・備考

引用文献1, 2に記載のものにおいて、「基準信号」を「複数の信号」から発生させるようなものとして、本願請求項1～3, 20～22, 39～41, 45～47, 58, 59, 67, 68に係る発明のような構成とすることは、引用文献3, 4に記載のもの等を参照することにより、当業者が適宜に設計できる事項にすぎないと認められる。

- ・請求項 4～19, 23～38, 42～44, 48～50, 60～66, 69～77
- ・引用文献等 1～4
- ・備考

本願請求項4～19, 23～38, 42～44, 48～50, 60～66, 69～77に係る発明のように構成することは、当業者が適宜に設計できる事項にすぎないものと認められる。

・請求項 51～57

・引用文献等 1～3

・備考

本願請求項51～57に係る発明は、引用文献1～3に記載されているような多値メモリに基いて、当業者が容易に発明をすることができた程度のものと認められる。

### 引 用 文 献 等 一 覧

1. 特開平9-181279号公報
2. 特表平4-507320号公報
3. 特開平5-217385号公報
4. 特開平3-242898号公報

[理由(2)について]

1. 請求項1, 7, 8, 15, 16, 20, 26, 27, 34, 35, 39, 44, 45, 50, 52, 55, 57, 58, 63, 67, 71, 72において、「ほぼ」との記載があるが、「ほぼ」との記載は、どの程度のものまでを含むのかが不明確である。
2. 請求項12, 31において、「前記分圧回路」と記載されているが、請求項11, 30には「分割回路」と記載されており、記載が対応していない。
3. 請求項12, 13, 31, 32, 65, 66, 74にある「分割器」は、「分割回路」とどのように区別されるものなのかが不明である。

拒絶の理由が新たに発見された場合には拒絶の理由が通知される。

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### 先行技術文献調査結果の記録

・調査した分野 I P C 第7版 G 11 C 16/00-16/34

・先行技術文献  
特開平6-68682号公報  
特開平8-195092号公報  
特開昭62-6493号公報

この先行技術文献調査結果の記録は、拒絶理由を構成するものではない。

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この拒絶理由通知の内容に関するお問い合わせがございましたら下記までご連絡下さい。

特許審査第4部 情報処理（記憶管理） 長島孝志

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